Session 610

Introduction to Data Modeling and Connectivity

Steve Miner
WebObjects Engineer

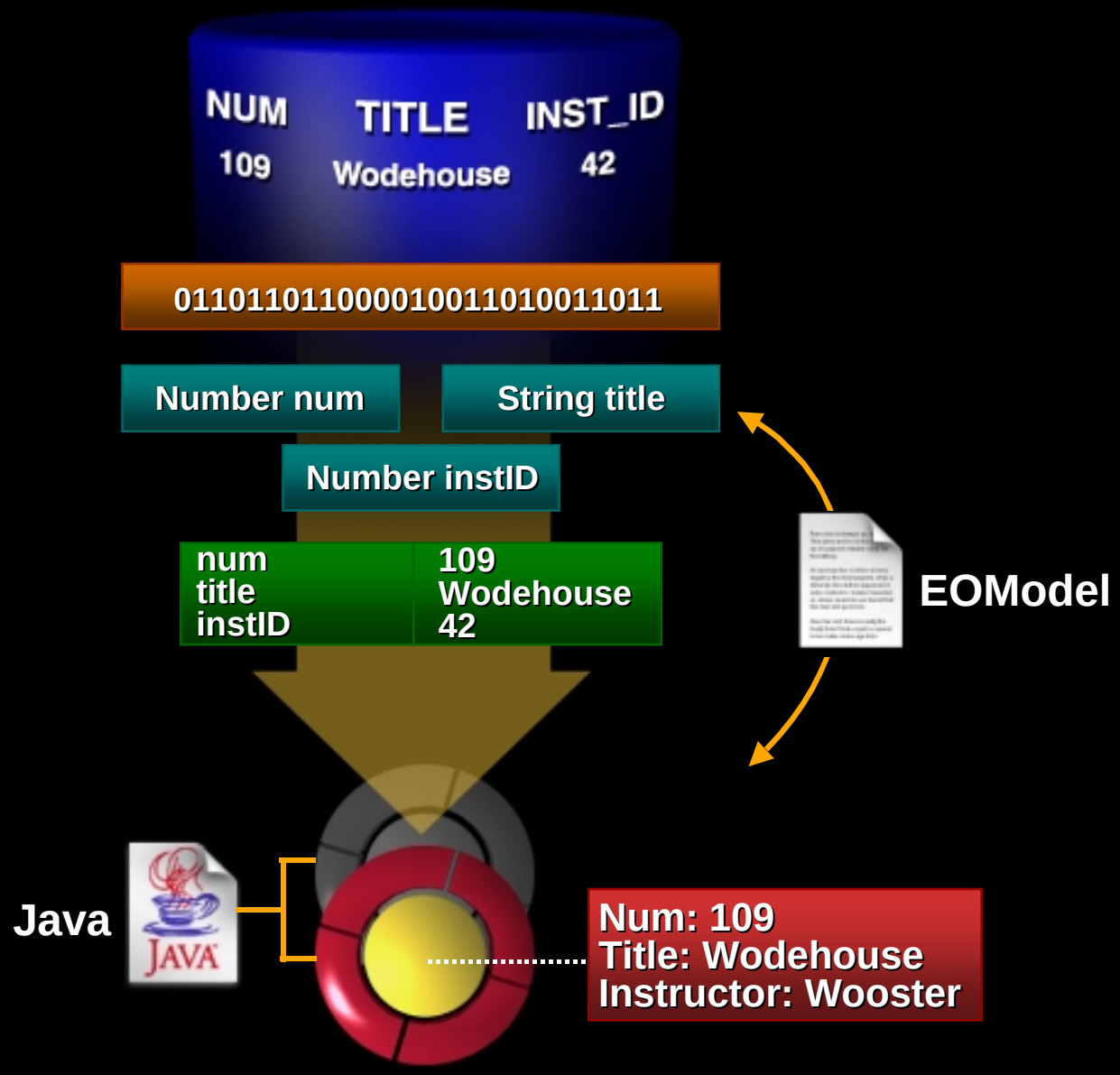
Introduction

- Using EOModeler to map relational data into objects
- JDBC Adaptor

What You'll Learn

- Model
  - Entity
  - Attribute
  - Relationship
- Fetch specification
- Inheritance
- JDBC adaptor

EOF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EOModel
Java
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Title: Wodehouse
Instructor: Wooster

EOModel

- Entities
- Connection Dictionary
- Stored procedures
- Named Fetch Specifications

Demo

EOModeler

Ernest Kim
WebObjects Engineer

EOEntity

- Maps a table into a class
- Abstract
- Parent
- Restricting Qualifier
- Read-only
- Cached

Demo

EOModeler—Entities

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WebObjects Engineer

EOAttribute

- Maps a column into a instance field
- Class Property
- Primary Key
- Allows null
- External Type
- Value Class
- Value Type

Advanced Attributes

- Read-only
- Custom formatting
- Derived
- Flattened
- Custom value class

Demo

EOModeler—Attributes

Ernest Kim
WebObjects Engineer

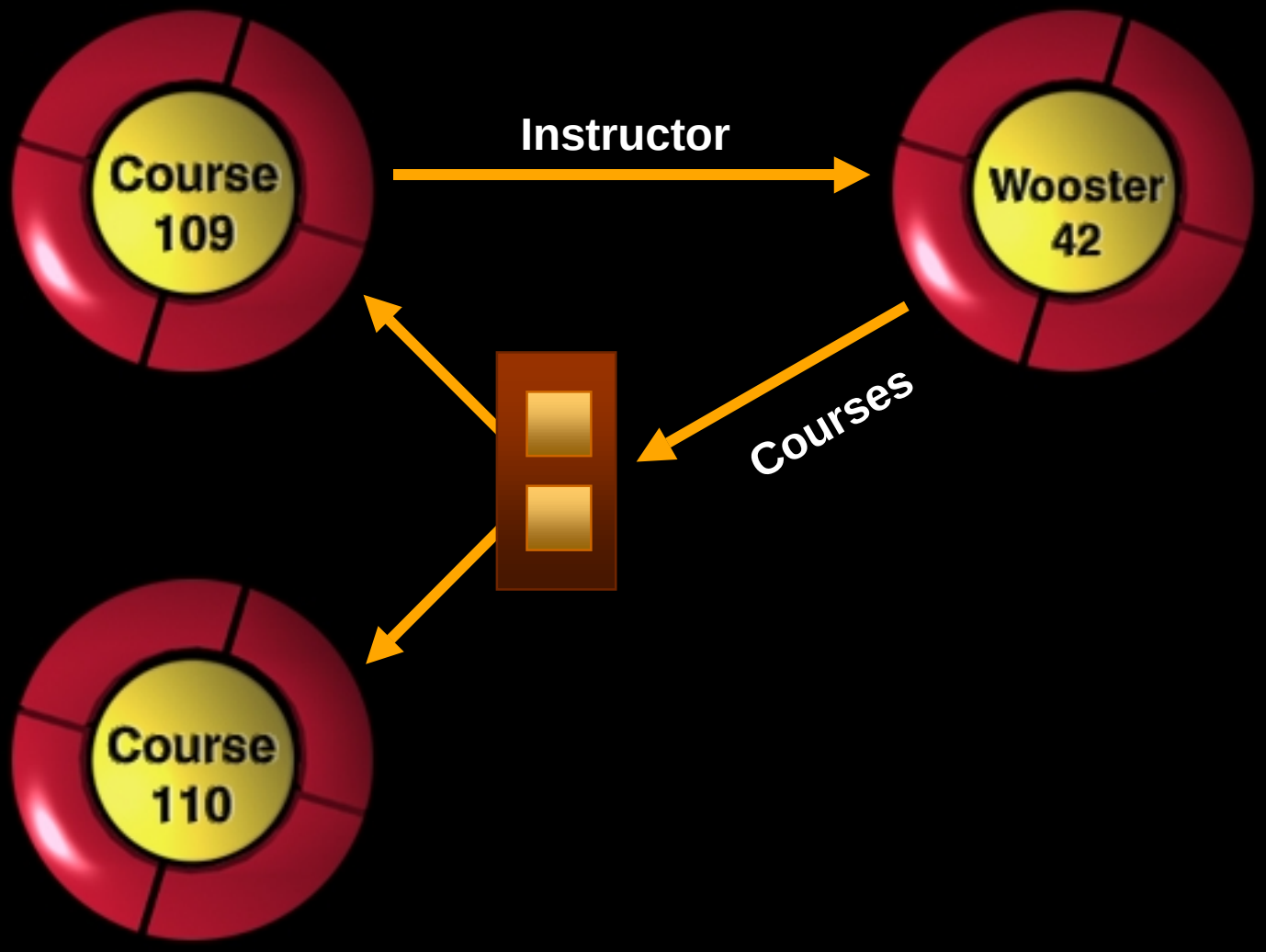
Custom Value Class

- Map the value into your class
- Factory method
  - customWithString(string)
- Conversion method
  - customAsString
- Init argument
  - String (or NSData or byte[])

EORelationship

- Maps a foreign key into another object
- To-one
- To-many
- Inverse relationships

EORelationship



Advanced Relationships

- Optional
- Propagate primary key
- Delete rules
- Owns destination
- Batch faulting

Demo

EOModeler—Relationships

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WebObjects Engineer

Creating Models and Tables

- Reverse engineering
- Generate SQL for tables
- Generate Java source file
- Schema synchronization

Editing a Model

- Switch adaptor
- Set adaptor info
- Change any model object
- Edit fetch specifications

Demo

EOModeler—Tables

Ernest Kim
WebObjects Engineer

EOFetchSpecification

- Fetches objects from a database into an Editing Context
- EOQualifier
- isDeep
- Shared objects (Entity)
- Fetch Spec Builder

Demo

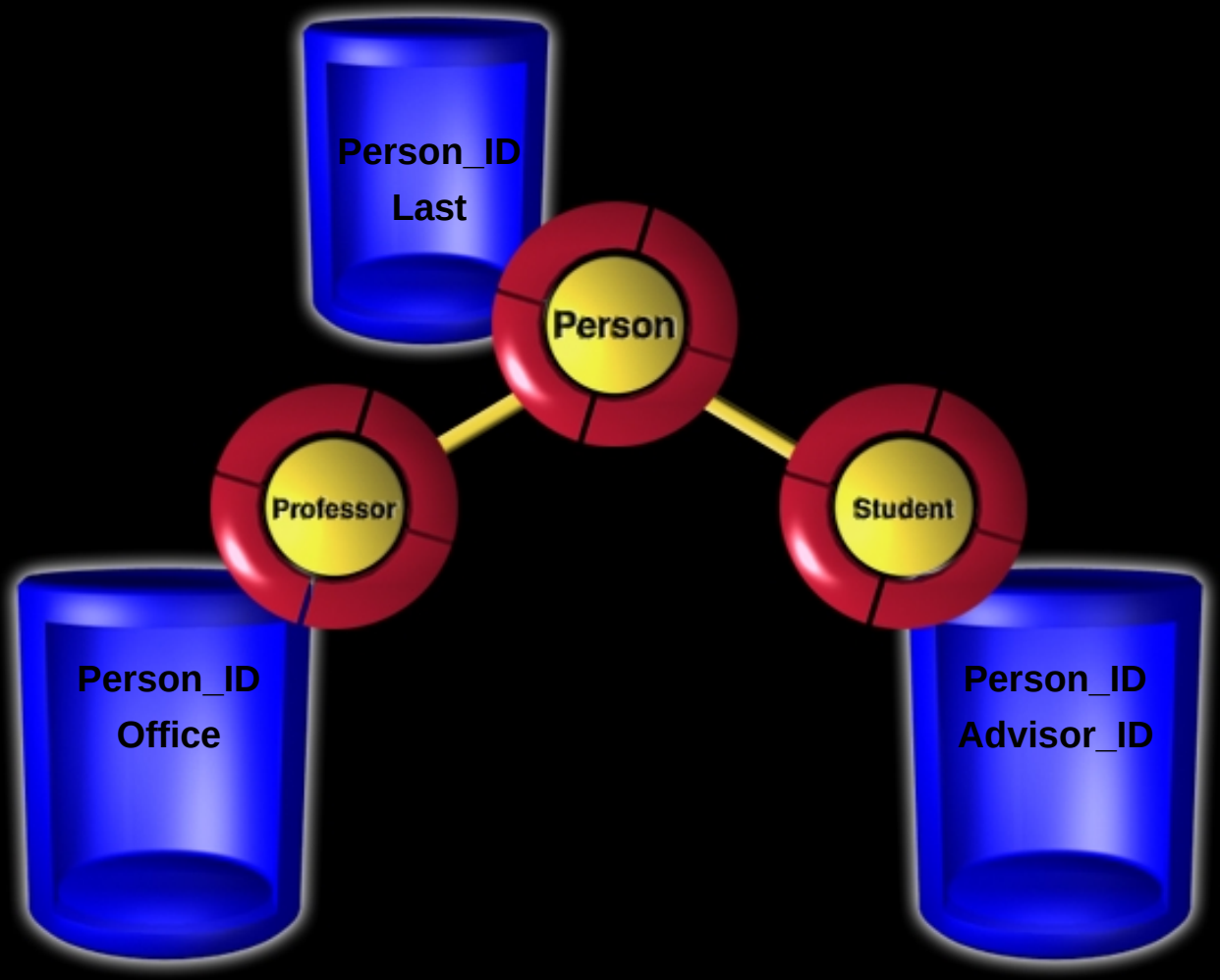
EOModeler—Fetch Specifications

Ernest Kim
WebObjects Engineer

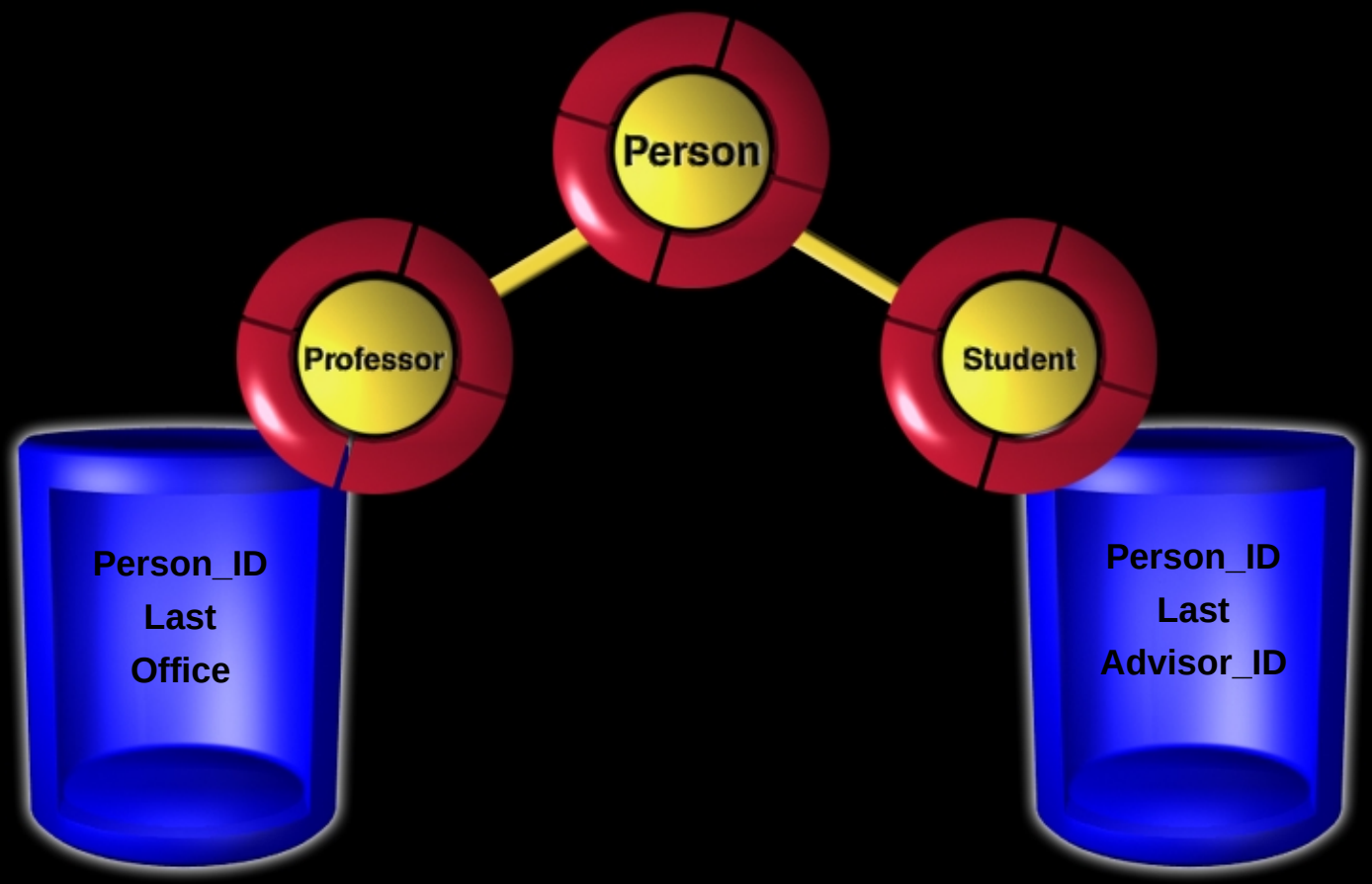
Inheritance

- Vertical
- Horizontal
- Single-table

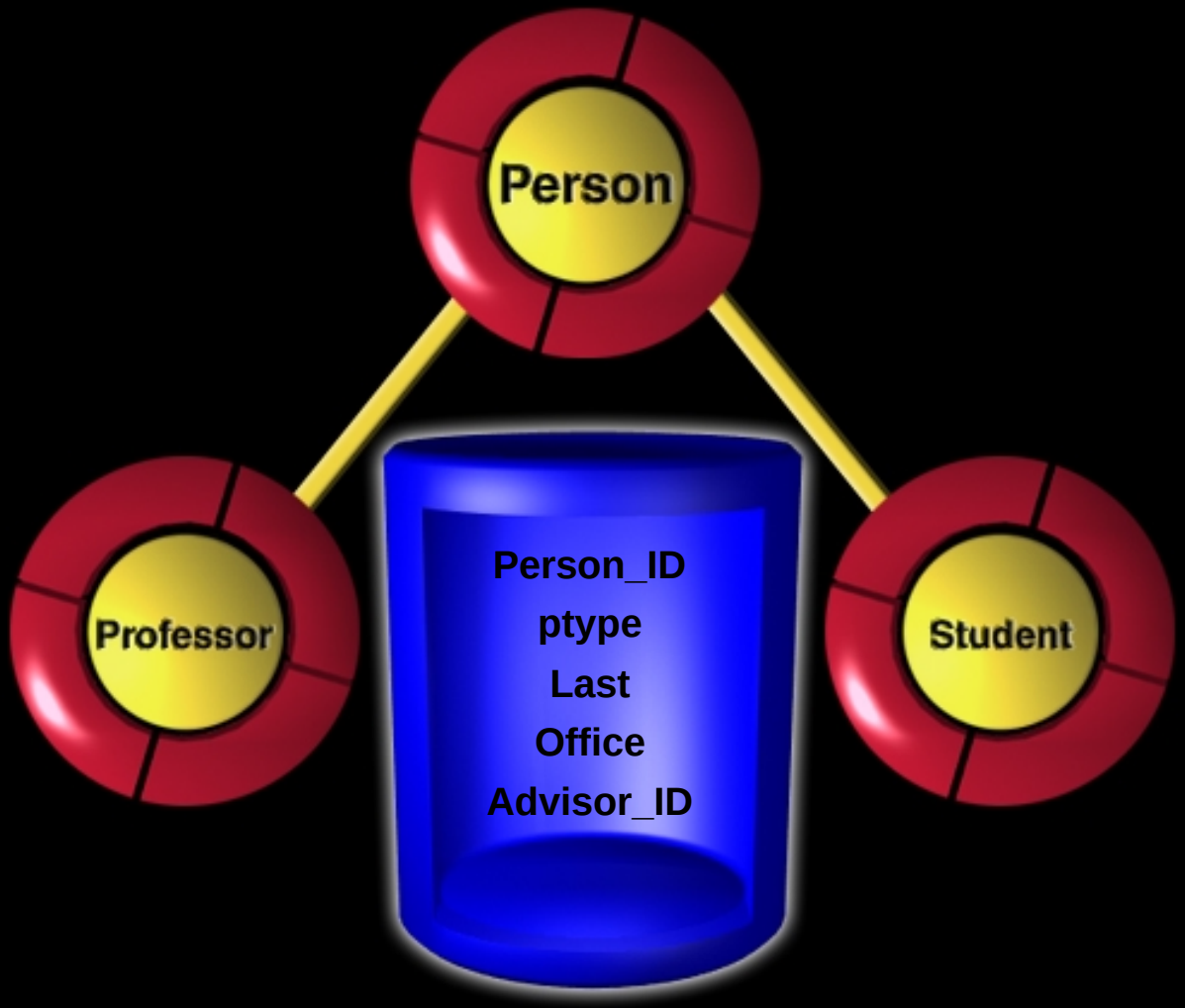
Vertical Inheritance



Horizontal Inheritance



Single Table Inheritance



Demo

EOModeler—Inheritance

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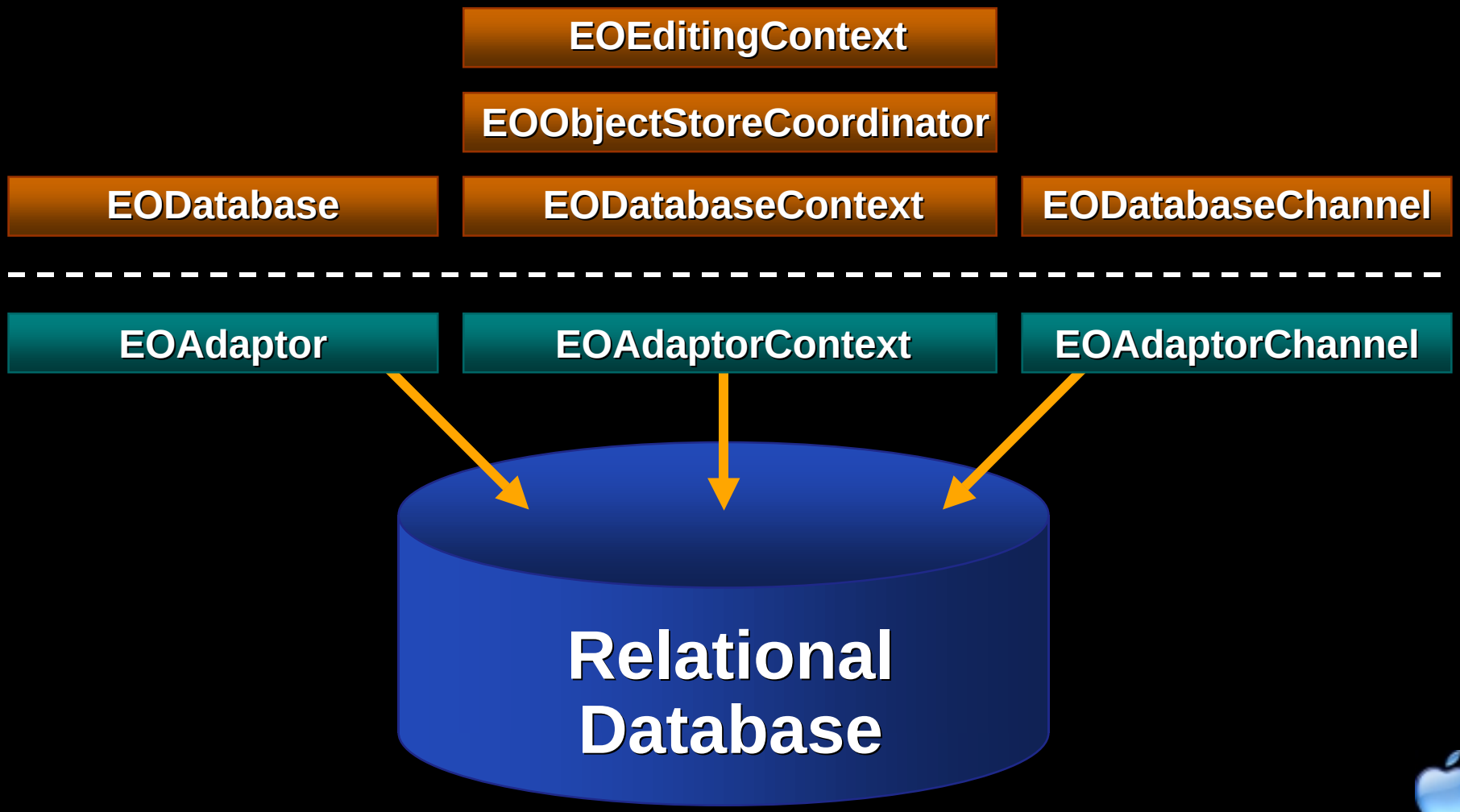
WebObjects Engineer

EOAdaptor

- Allows EOF to talk to a database
- EOAdaptorContext—manages connection for EODatabaseContext
- EOAdaptorChannel—sends queries for EODatabaseChannel

EOAdaptor Layer



JDBC Adaptor

- "The" EOAdaptor for WebObjects 5
- JDBC
  - ODBC in Java
  - Standard API
- JDBCPlugIn
  - Handles DB-specific features

JDBC™

"Capital letters were always the best way of dealing with things you didn't have a good answer to."

– *Douglas Adams*

Connection Dictionary

- Username
- Password
- JDBC URL
- PlugIn (optional)
- Driver (optional)

JDBC URL

- Generic form

  jdbc:subprotocol:datasource

- Examples

  jdbc:oracle:thin:@myhost:1521:sid

  jdbc:openbase://localhost/WOMovies

JDBCPlugIn

- Customizes adaptor behavior
- Default is guessed from subprotocol

  jdbc:oracle: => com.webobjects.jdbcadaptor.OraclePlugIn

- setPlugInNameForSubprotocol

Driver

- JDBCPlugIn guesses default
- Override in connection dictionary

  oracle.jdbc.driver.OracleDriver
- Install driver jar in classpath or “ext” directory

  /Library/Java/Home/lib/ext/

Demo

EOModeler

Ernest Kim
WebObjects Engineer

WebObjects Lab

- Located downstairs in Room K
- Lab hours
  - Monday 12:00pm–6:00pm
  - Tuesday 10:30am–6:00pm
  - Wednesday 10:30am–6:00pm
  - Thursday 10:30am–6:00pm
  - Friday 10:30am–3:30pm

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http://developer.apple.com/webobjects

Roadmap

611 Deploying WebObjects Applications	Room A1 **Thurs., 10:30am**
612 Direct to Web	Room A1 **Thurs., 2:00pm**
613 Advanced Enterprise Objects Framework	Room A1 **Thurs., 3:30pm**
614 Advanced Java Client	Room A1 **Thurs., 5:00pm**

Who to Contact

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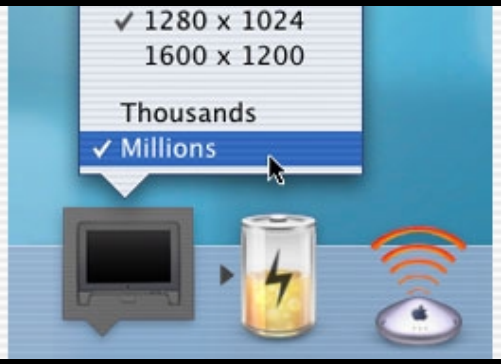
Q&A



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